

To: Durno, Mark[durno.mark@epa.gov]
From: Scott Smith
Sent: Mon 6/5/2017 2:03:33 PM
Subject: Re: Summary Tables
Expanded Health Draft Summary 5 5 16 w WD VOC.xlsx

Mark,

Thanks very much – this is helpful.

The Water Defense data is from the homes/residences tested in April of 2016 only which were 4:

Ex. 6 - Personal Privacy UMF (University of Michigan at Flint), Ex. 6 - Personal Privacy

I want to confirm that I understand this specific sampling properly and please let me know if the following is accurate:

1. The attached spreadsheet from EPA shows Water Defense grab sampling data generally within the same range of EPA data.
2. None of this testing (whether from the EPA or Water Defense) is under the Lead and Copper Rule or any other regulation.
3. This is an example of the EPA gathering data and researching outside of any regulations as is commonly done when gathering additional data for research – as in this case the additional data was to research the health complaints including rashes from showers/baths and there are no such regulations related to hot shower/bath water.

Best Regards,

Scott C. Smith
Cell (508) 345-6520
Twitter: @WaterWarriorOne

From: Mark Durno <durno.mark@epa.gov>
Date: Monday, June 5, 2017 at 9:12 AM
To: Scott Smith <:ssmith@opflexinventor.com>
Subject: RE: Summary Tables

Scott,

This is our procedure from our QAPP for Flint:

Flint Sampling Project

February 2017 – Revision 3

Page 55 of 76

Appendix D-2 – Limited “Pilot” Evaluation

EPA will coordinate with MDHHS and ATSDR to collect grab water samples from homes selected by MDHHS and ATSDR to compare water quality at homes with reported health

concerns in comparison to homes without health concerns. These water samples will be evaluated for an extended list of organic compounds including volatile organic compounds

(VOC), semi-volatile organic compounds (SVOC), and disinfection byproducts (DBP).
Sampling

procedures were approved by MDHHS and ATSDR, and analytical methods, analyte lists, and

detection limits were selected by MDHHS and ATSDR.

Field sampling coordinators will confirm the schedule with the applicable resident(s) in advance

of sampling activities. At least 6 hours prior to sampling (i.e., the night before), the resident will

assure that water is not used overnight. The resident will be asked to record the time at which

flushing was completed and when water was last used in the home (i.e., no faucets, toilets,

shower, bath tub, washing machine, dishwasher, and hose), and field sampling coordinators will

record the total stagnation time in the field records.

At each selected sampling site, water samples will be collected from a bathtub faucet at two

temperatures: cold water and hot water (maximum temperature after running the hot water for

approximately one minute). For each water temperature, the following water samples will be

collected and analyzed by a contract laboratory:

- Total Metals (one 1,000-mL wide mouth bottle, field-preserved with nitric acid) for analysis using EPA Method 200.7/200.8 (long list – see Section 9.1)

- VOCs including THMs (three 40-mL vials, Teflon-capped, ascorbic acid pre-dosed and

field-preserved with hydrochloric acid, zero headspace, and ice), for analysis using EPA Method 524.2

- DBPs General List (three 60-ml vials, Teflon-capped, ammonium chloride and phosphate

buffer pre-dosed and field-preserved with zero headspace and ice), for analysis using EPA Method 551.1

- Chloral Hydrate (two 60-mL vials, Teflon-capped, sodium sulfite and phosphate buffer pre-dosed and field-preserved with zero headspace and ice), for analysis using EPA Method 551.1

- HAAs (one 250-mL amber glass bottle, ammonium chloride pre-dosed and fieldpreserved

with ice), for analysis using EPA Method 552.3

- SVOCs (two 1,000-mL amber glass bottles, sodium sulfite crystals pre-dosed and fieldpreserved

with ice), for analysis using EPA Method 525.2

In addition, field measurement of temperature will be collected and recorded (for both cold water

and hot water) following filling all bottles.

Samples for VOC analysis will be filled slowly to reduce loss of volatiles and to prevent overfilling. Field sampling coordinators will wear gloves during sampling to protect from acid

preservative, and any droplets that fall while closing the zero-headspace bottles will be rinsed

down the drain as a safety measure.

Flint Sampling Project

February 2017 – Revision 3

Page **56** of **76**

Unique sample identification will be required, and sample times should be recorded for each

sample bottle. Deviations from the sampling nomenclature indicated below must be clearly

documented in the field records including hard copy field forms, electronic field forms, and/or

chains of custody:

☐ Suffix of “RP” will indicate the sampling site was selected by MDHHS and ATSDR, based on health concern information provided by the resident.

☐ Suffix of “RPC” will indicate the sampling site was selected as a control site by MDHHS

and ATSDR; available information indicates there are no health concerns at these sites.

☐ House letter unique to the address and sample type will be included following numbers.

☐ Numbers will be used to indicate unique samples:

o RP01 (or RPC01) – Cold water (first flush) sample for total metals (long list – see Section 9.1)

- o RP02 (or RPC02) – Cold water (first flush) sample for VOCs including TTHMs
- o RP03 (or RPC03) – Cold water (first flush) sample for DBPs general list
- o RP04 (or RPC04) – Cold water (first flush) sample for Chloral hydrate
- o RP05 (or RPC05) - Cold water (first flush) sample for HAAs
- o RP06 (or RPC06) - Cold water (first flush) sample for SVOCs
- o RP07 (or RPC07) – Hot water sample for total metals (long list – see Section 9.1)
- o RP08 (or RPC08) – Hot water sample for VOCs including TTHMs
- o RP09 (or RPC09) – Hot water sample for DBPs general list
- o RP10 (or RPC10) – Hot water sample for Chloral hydrate
- o RP11 (or RPC11) - Hot water sample for HAAs
- o RP12 (or RPC12) - Hot water sample for SVOCs

☐ Trip blanks for VOC and TTHM analysis will be included in each shipment and identified on the chains of custody (e.g. “Blank”).

Field records should also include the following, to the extent information is provided by the

resident or observed in the field:

☐ Interior plumbing including material (e.g., PVC, galvanized iron, copper, and/or lead), length, and diameter

☐ Service line including material (e.g., PVC, galvanized iron, copper, and/or lead), length, and diameter

☐ Estimated distance (or pipe length) between the sample tap and the distribution water

main

☐ Filter(s) in use at the home, including any that were being used at the time of sampling

☐ Known physical disturbances such as recent road work or utility work that could disturb

the service line near the sampling site

☐ Other relevant field observations such as activities completed at the home (e.g., flushing,

aerator cleaning) and color, odor, or debris in the water

☐ Photographs of the sample tap(s) and underlying fixtures and components

Water samples, including for analysis of VOCs, SVOCs, and DBPs, will be placed in ice-packed

coolers as soon as possible after collection. Field sampling coordinators will be responsible to

pack samples and ship to the applicable contract laboratory, as described in Appendix J.

Flint Sampling Project

February 2017 – Revision 3

Page 57 of 76

Following the completion of grab sampling, field measurements for pH and chlorine residual

may be collected as discussed in Section 5.6.

If time allows, the field sampling coordinators will work with residents to check and clean aerators on ALL other faucets in home.

Mark Durno

Homeland Security Advisor

Emergency Response Branch
U.S. Environmental Protection Agency
25063 Center Ridge Road
Westlake, OH 44145

440-250-1743

From: Scott Smith [<mailto:ssmith@opflexinventor.com>]
Sent: Sunday, June 04, 2017 8:15 AM
To: Durno, Mark <durno.mark@epa.gov>
Subject: FW: Summary Tables

Mark,

Quick question: On the EPA data was it from water heaters and hot showers? It does not look like it states it in the attached document but maybe I missed it?

Best Regards,

Scott C. Smith

Cell (508) 345-6520

Twitter: @WaterWarriorOne

From: Mark Durno <durno.mark@epa.gov>
Date: Sunday, July 17, 2016 at 10:04 PM
To: Scott Smith <ssmith@waterdefense.org>
Subject: Summary Tables

Scott,

Attached, as discussed – comparisons of data.

Rash Sample: collected from homes where rash/skin irritation were reported.

Control Sample: collected from homes where no rash/skin problems were reported.

WD Samples: VOCs grab sample results that Water Defense shared with EPA (as of early May).

Also – there are additional 'tabs' of supplemental analytical work that we did.

We anticipate the health report coming out in the next few weeks from CDC. Residents should receive their individual information soon after.

Let me know if you have questions.

Mark

Mark Durno

Homeland Security Advisor / Deputy Chief

Emergency Response Branch
U.S. Environmental Protection Agency
25063 Center Ridge Road
Westlake, OH 44145

440-250-1743